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2 **ABSTRACT**

3       An implementation is described herein facilitates certification of goods  
4 and/or identifications of the source of such goods. At least one implementation,  
5 described herein, embeds a watermark into a relatively small amount of data in a  
6 deterministic manner. At least one implementation, described herein, generates an  
7 authentication transformation matrix based, at least in part, upon an authentication  
8 watermark and a pre-defined humanly perceptible authentication pattern (e.g.,  
9 image, audio). With this implementation, it obtains subject goods that *may* have  
10 the authentication watermark embedded therein. It generates a humanly  
11 perceptible resultant pattern (e.g., image, audio) based, at least in part, upon the  
12 watermark detected in subject goods and the transformation matrix. If the  
13 detected watermark is the authentication watermark, then the resultant pattern and  
14 the pre-defined authentication pattern will match (or nearly so). At least one  
15 implementation, described herein, hides a secret key around the periphery of  
16 watermarked goods. This abstract itself is not intended to limit the scope of this  
17 patent. The scope of the present invention is pointed out in the appending claims.  
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